

Abstract

**ESTIMATING CURRENT DENSITY PARAMETERS ON SIGNAL LEADS
OF AN INTEGRATED CIRCUIT**

Estimating current density parameters on signal leads of an integrated circuit using
5 computer aided design (CAD) tools. The signal leads are modeled as an impedance network
(e.g., containing resistors and capacitors) and the driver cells are modeled as triangle
(current) signal. The parameters of the triangle signal (e.g. peaks, periodicity) may be
determined based on the characterization data of corresponding driver cell. By measuring the
signals transferred on the impedances, the current density parameters on signal leads may be
10 estimated.